

Notice of Allowability

Application No.

10/530,990

Examiner

Charles Chow

Applicant(s)

ARAYASHIKI, MAMORU

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/18/2006.
2. ☒ The allowed claim(s) is/are 1-3, 5 and 6.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Detailed Action

1. This office action is for amendment received on 312/18/2006.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment has been given from attorney Suzanne Gagnon in a telephone interview on January 8, 2007.

Attorney has authorized examiner to amend claim 6 as follows:

In **claim 6, line 12**, deleting "a high frequency output signal measuring step for".

In **claim 6, line 15**, deleting "a delay quantity calculating step for"

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

Claims 1-3, 5-6 are allowable over the prior art of record. The prior arts fail to teach the allowable features, singly, particularly, or in combination.

Applicant has amended independent claims 1, 3, with the allowable features & the prior arts fail to teach the claimed features in independent claim 6, [pages 110-13 of applicant amendment].

The dependent claims 2, 5 are also allowable due to their dependency upon the allowable independent claims above and the having additional claimed features.

The prior arts fail to teach the features in independent **claim 1** for the **delay quantity switching & controlling unit**, **switching & controlling the quantity of delay of the first,**

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second, delay unit, on the basis of the stored delay quantity data of the delay quantity table,
for the delaying the amplitude data with a first delay unit; the delaying of phase data with a
second delay unit; associated with the amplitude modulation unit & amplitude modulation
unit; the high frequency amplifying unit of a transmitter.

The prior arts fail to teach the features in independent **claim 3** for the **delay quantity switching & controlling unit**, switching & controlling the quantity of delay of the first, second, delay unit, wherein when the transmit data having different signal bandwidth, the delay quantity switching control unit switches the quantity of delay to the delay corresponding to the signal bandwidth, associated with the transmitter.

The prior arts fail to teach the features in independent **claim 6** for a high frequency output signal measuring step for measuring the characteristics of the output signal of the high frequency amplifying unit in the transmitter; and

a delay quantity calculating step for calculating a proper delay quantity on the basis of the measured result to set the quantity of delay in the first delay unit and the second delay unit, associated with the method for adjusting a transmitter.

The closest prior art, **Schell (US 2002/0176,514 A1)** teaches the transmitter in Fig. 12 having the delay table 1211, 1213 for 1215, 1217, to delay the amplitude signal & phase signal [0043-0048], but fails to teach the **delay quantity switching & controlling unit**, switching & controlling the quantity of delay of the first, second, delay unit, on the basis of the stored delay quantity data of the delay quantity table; the delay quantity switching control unit switches the quantity of delay to the delay corresponding to the signal bandwidth

Yoneyama (US 2001/0050,963 A1) teaches the detector 106a/106b, for detecting the modulated signal to generate controlling of the amount of delaying 108 [Fig. 2, paragraph 0036-0039], but fails to teach the features which missed by Schell.

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Other prior arts in below has been considered, but they fail to teach the above allowable features.

Pakonen (US 6,480,704 B1) teaches the negative feedback from 8 to comparator 17, & to the amplitude modulator 19, to correct the amplifier nonlinearity [col. 4, lines 21-35].

Kahn (US 4,176,319) teaches the adjusting bandwidth so that the delay for envelope modulation path is equal to phase modulation path [col. 4, lines 3-14].

Mitzlaff (US 6,735,419 B2) teaches the wireless power transmitter [Fig. 1] has delay circuit 165, 160 [Fig. 1 & abstract].

Shimizu (US 6,914,943 B2) teaches the modulator & power amplifier [Fig. 3, abstract] which has delay circuit 23 for amplitude signal.

Other prior arts are also considered. They are : **Mitzlaff (US 6,600,369)**, **Mathe et al. (US 7,068,984)**, **Midtgaard et al. (US 7,062,236 B2)**, **Wilson et al. (US 6,631,254 B1)**, **Khan et al. (US 6,445,249 B1)**, **Faulkner et al. (US 5,420,536)**, **Makiedonski (US 3,569,837)**, **Mathe et al. (US 7,068,984 B2)**.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles C. Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or

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proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow *cc.*

January 4, 2007.


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